

ABSTRACT OF THE DISCLOSURE

A balloon catheter having an elongated shaft and a balloon mounted on the distal portion of the shaft, the balloon having a working section and proximal and distal end portions that extend inwardly with respect to the working section and which are secured to the catheter shaft within the working section. The end portions are therefore inverted recesses on each end of the balloon. A stent may be disposed about the balloon to form a stent deploying system. The proximal and distal end portions may contain a tapered portion, which tapers from the balloon working section to the catheter shaft with decreasing transverse dimension. The end portions may be connected to the working section with connecting fibers. This design allows for improved expansion and stent placement in the vasculature.